

Annual Workshop on Modeling and Simulation in Applied Mathematics

Department of Mathematics Graduate School of Science, Josai University

Venue: Room 22, The 3rd Building, Tokyo Kioi-cho Campus, Josai University

Date/Time: Dec. 20 (Sun.), 2015 / 9:30 - 17:00

Program:

9:30 - 9:40 **Opening**

9:40 - 10:40 Chair: Hidenori Yasuda (Josai University)

- *“Mathematical Modeling and Simulation for Origami Tsunami Pod”*
Eri NAKAYAMA (Meiji University), Takamichi SUSHIDA (Meiji University)
and Ichiro HAGIWARA (Meiji University)
- *“Bland’s rule for the Network Simplex Algorithm”*
Sennosuke WATANABE (Doshisha University) and Yoshihide WATANABE
(Doshisha University)

10:40 - 10:50 **Coffee Break**

10:50 - 11:50 Chair: Masahiro Fujita (Josai University)

- *“Numerical simulation of the behavior of three rising bubbles by an energy-stable finite element scheme”*
Masahisa TABATA (Waseda University)
- *“Mesoscale modeling of colloidal suspensions with adsorbing solutes”*
Rei TATSUMI (The University of Tokyo), Osamu KOIKE (Products Innovation Association) and Yukio YAMAGUCHI (Products Innovation Association)

11:50 - 13:00 **Lunch**

13:00 - 14:00 Chair: Manabu Inuma (Josai University)

- *“Numerical simulation of fouling by particles in dead-end constant-pressure microfiltration”*
Kazuki AKAMATSU (Kogakuin University), Shosuke KANASUGI (Kogakuin University), Masahiro FUJITA (Josai University) and Shin-ichi NAKAO (Kogakuin University)
- *“Behavior analysis of coating layer particles in cosmetic materials during drying by observation and computational simulation”*
Katsuyuki HASEGAWA (Shiseido CO., LTD.), Akio NASU (Shiseido CO., LTD.) and Masahiro FUJITA (Josai University)

14:00 - 14:10 **Coffee Break**

14:10 - 15:10 Chair: Takahiro Tsuchiya (Josai University)

- *“Simulated pathogenesis of severe acute respiratory distress syndrome and leukopenia induced with influenza A/H5N1 virus infection and its treatment with immunoglobulins”*

Hidenori YASUDA (Josai University), Shohji KAWACHI (National Center for Global Health and Medicine) and Kazuo SUZUKI (The Asia International Institute of Infectious Disease Control, Teikyo University)

- *“Endemic threshold analysis for the Kermack-McKendrick reinfection model”*
Hisashi INABA (The University of Tokyo)

15:10 - 15:20 **Coffee Break**

15:20 - 16:50 Chair: Manabu Inuma (Josai University)

- *“Accurate numerical integration algorithm for the Kepler motion”*
Yosuke NAKANISHI (Pixela Corporation), Yukitaka MINESAKI (Tokushima Bunri University) and Yoshimasa NAKAMURA (Kyoto University)

- *“Invariant N -gon relative equilibria of discrete-time $(1 + N)$ -body problem with small arbitrary masses”*
Yukitaka MINESAKI (Tokushima Bunri University)

- *“Reaction-diffusion models with a conservation law and pattern formations”*
Yoshihisa MORITA (Ryukoku University) and Naoyuki SHINJO (Ryukoku University)

16:50 - 17:00 **Closing**

List of Participants

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|---------------------|---------------------------------|
| Akamatsu, Kazuki | Kansai University |
| Fujita, Masahiro | Josai University |
| Fujita, Shoichi | Josai University |
| Hagiwara, Ichiro | Meiji University |
| Hasegawa, Katsuyuki | Shiseido CO., LTD. |
| Inaba, Hisashi | The University of Tokyo |
| Inuma, Manabu | Josai University |
| Koike, Osamu | Products Innovation Association |
| Minesaki, Yukitaka | Tokushima Bunri University |
| Morita, Yoshihisa | Ryukoku University |
| Nakamura, Toshiko | Josai University |
| Nakamura, Yoshimasa | Meiji University |
| Nakayama, Eri | Meiji University |
| Nasu, Akio | Shiseido CO., LTD. |
| Shinjo, Naoyuki | Ryukoku University |
| Tabata, Masahisa | Waseda University |
| Tatsumi, Rei | The University of Tokyo |
| Tsuchiya, Takahiro | Josai University |
| Watanabe, Sennosuke | Doshisha University |
| Watanabe, Yoshihide | Doshisha University |
| Yasuda, Hidenori | Josai University |